REMARKS

The present application was filed on October 12, 2001 with claims 1-27. Claims 1, 14 and 27 are the independent claims.

In the outstanding Office Action, the Examiner: (i) rejected claims 1, 3, 14, 16 and 27 under 35 U.S.C. §103(a) as being unpatentable over D. Mishra, "SNOOP: An Event Specification Language for Active Database System," Thesis from University of Florida, 1991 (hereinafter "Mishra") in view of U.S. Patent No. 6,006,213 to Yoshida (hereinafter "Yoshida"); (ii) claims 2 and 15 under 35 U.S.C. §103(a) as being unpatentable over Mishra in view of Yoshida in further view of U.S. Patent No. 5,345,380 to Babson et al. (hereinafter "Babson"); (iii) claims 4-7, 11, 13, 17-20, 24 and 26 under 35 U.S.C. §103(a) as being unpatentable over Mishra in view of Yoshida in further view of U.S. Patent No. 6,249,755 to Yemini et al. (hereinafter "Yemini"); and (iv) claims 8-10, 12, 21-23 and 25 under 35 U.S.C. §103(a) as being unpatentable over Mishra in view of Yoshida in view of Yemini in further view of Bettini et al., "Testing Complex Temporal Relationship Involving Multiple Granularities and Its Application to Data Mining," ACM 1996 (hereinafter "Bettini") .

In this response, Applicants: (i) add new claims 28 and 29; and (ii) traverse the various §103(a) rejections for at least the following reasons.

Regarding the §103 rejection of claims 1, 14 and 27, Applicants respectfully assert that the Mishra/Yoshida combination fails to teach or suggest each and every limitation of the claimed invention.

For example, as recited in amended independent claim 1, a computer-based method for use in accordance with an event management system comprising the steps of automatically generating one or more event relationship networks from event data, wherein an event relationship network comprises a graphical representation wherein nodes represent events and links connect correlated nodes, and utilizing the one or more generated event relationship networks to construct one or more correlation rules for use by a correlation engine in the event management system. Independent claims 14 and 27 recite similar limitations.

The present specification explains, by way of example at page 7, line 6-10, that the approach taken by the present invention is to describe correlation logic uses a conceptual framework called

event relationship networks or ERNs. In one embodiment, an ERN is a directed cyclic graph. Nodes are events and are labeled with the role of the event within the case. Arcs or links from one event to the next indicate that the latter is associated with or correlated with the former. Furthermore, as the Abstract of the present application states, in conventional approaches, ERNs are constructed purely based on human expertise and there is no automatic or event semi-automatic method that validates or completes ERNs. The present invention provides techniques for automatically validating and completing existing ERNs and/or constructing new ERNs, based on collected event data.

The Mishra/Yoshida combination does not disclose automatically generating one or more event relationship networks from event data, wherein an event relationship network comprises a graphical representation wherein nodes represent events and links connect correlated nodes, as in the claimed invention.

The Office Action cites the "event compiler" and "event graph" on pages 57 and 58 of Mishra in support of rejecting the claimed step of automatically generating one or more event relationship networks from event data, wherein an event relationship network comprises a graphical representation wherein nodes represent events and links connect correlated nodes. However, the event graph of Mishra is not an event relationship network that can be used to construct one or more correlation rules for use by a correlation engine in an event management system, as in the claimed invention. In fact, as explained at page 57 of Mishra, a rule is actually the input for the graph building algorithm. Then, as explained at page 58, in the event detection technique of Mishra, it is assumed that a event graph already exits and Mishra is detecting instances of the event graph. Thus, this is significantly different than what is claimed.

For at least the above reasons, independent claims 1, 14 and 27 are patentable over the Mishra/Yoshida combination. Further, dependent claims 2-13 and 15-26 are also patentable over the Mishra/Yoshida combination and the further combinations with Yemini, Babson and/or Bettini not only for the above reasons, but also because such claims recite patentable subject matter in their own right. Yoshida, Yemini, Babson and Bettini do not remedy the above-described deficiencies.

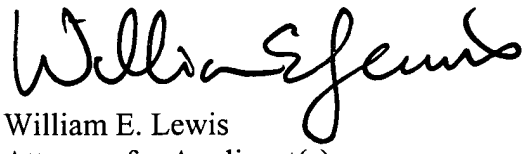
Applicants have added new claims 28 which recites that the automated generation of at least one of the one or more event relationship networks comprises use of an automated pairwise

statistical correlation procedure which is configured to compute a first correlation metric and a second correlation metric, the second correlation metric being representative of a correlation between events that is stronger than a correlation between events represented by the first correlation metric. Support for this feature may be found throughout the present specification, by way of example, see page 7, lines 1-3, as well as the further descriptions of the "weak correlation" metric and the "strong correlation" metric in the detailed description. None of the references recite such a feature.

Further, new claim 29 recites that the automated generation of at least one of the one or more event relationship networks comprises specifying an event data window within which event data is considered. Support for this feature may be found throughout the present specification, by way of example, see page 14, lines 5 and 6, as well as the further descriptions of the "window length *w*" in the detailed description. None of the references recite such a feature.

In view of the above, Applicants believe that claims 1-29 are in condition for allowance, and respectfully request withdrawal of the §103(a) rejections.

Respectfully submitted,



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